

Profile of Echo (J-42)

Year of Birth: 2007

Mother: Slick

Father: Unknown

Offspring: None

Sex: Female

**Siblings: 2 males, 1 female
1 unknown**

Echo is named for what whales do as they travel and forage for food - they echolocate. In the spring of 2007 J Pod was showing unusual travel behavior. They were spending a great deal of time in Haro Strait, off the west side of San Juan Island, making big loops up and down the middle of the strait. Then Slick had a new calf, J-42!

Echo is the only whale in J Pod with an open saddle on both sides. She has three older siblings. During the first couple weeks after Echo's birth, this family stayed very close, except that Alki had to stay back from mom and J-42. It wasn't too long before she got to meet her new sibling. In 2008 Echo was included in some play groups with other young whales. During one encounter Slick passed by without her calf. Another female passed by without her calf. But not far behind were not two but three calves, rolling around, leaping high above the surface. They were having a play date!

Echo belongs to a very independent family group. Often they can be found out ahead of J Pod and other times they are the trailers. One day as J Pod was traveling north past the lighthouse, Alki and mom went after J-42 when she veered off and swam under a kayak that was near the shore. When the whales surfaced, Alki and mom were on either side of J-42. It seemed that was a teachable moment for young Echo.

It appeared that when J-42 was about two years old the J16s began spending time with different groups. During 2009 Echo's family spent time with Princess Angeline (J-17) and her new offspring J-44. Alki had new baby sitting opportunities and Echo had a new playmate. Echo is very active and is one of the young whales who breaches often.

During the 2010 season Echo was seen playing with K-37 and his seven month old sibling Saturna K-43, their mother K-12 nearby. Slick and Alki were off shore by more than a mile and Mike (J-26) was up ahead of the playing kids by about a half mile. After a while the three came over and Echo joined them. They moved back offshore as a

tight family group, with Echo spyhopping and Alki doing barrel rolls. Echo's other brother Keet (J-33) was not with them. By late August 2010, Keet hadn't been seen in several weeks and was never seen again. Echo and Alki were seen many times during 2011, sometimes traveling a half mile or more behind mom and brother, and other times they were off playing with other young whales in J Pod.

Echo took a liking to Notch (J-47), but he belonged to the other J Pod group that they didn't usually travel with. During 2012 that changed. Many times Echo's family traveled with J-47's group and each time Echo was seen playing with Notch. When J-37 had her baby in August 2012, all of J Pod was together for several weeks. Echo and Eclipse (J-41) were very curious to meet the new baby J-49.

Sightings in 2013 were sparse due to a lack of food. On one occasion J-42 was seen in a resting pattern with her family members. During another encounter she was at play with several young whales. With the scarcity of food in 2014 the whales split into smaller groups. The J16s traveled with Granny's group except on one occasion when they were seen traveling toward the open ocean by themselves. A few days later they showed up again traveling with Granny's group. They soon left again traveling 40 miles or more before meeting back up with Granny's group.

You may want to reference your whale's Genealogy Chart when reading the profile.

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FACT SHEET OF THE SOUTHERN RESIDENT COMMUNITY

The Southern Resident Community clan of orcas consists of three extended family groups, or pods, called J, K and L. There are different types of killer whales found throughout the world. The resident pods that are found in the Pacific Northwest and Alaska are uniquely adapted to their ecosystem and are not representative of all killer whales. The following facts apply only to the whales found in this area.

What do they eat?

Our resident pods are mainly fish eaters. Although they are opportunistic feeders and will eat a variety of fish, their preferred diet is salmon. Their favorite salmon appears to be Chinook (King) salmon. It is estimated that the average orca needs 25 salmon per day.

How big do they get?

Males can reach up to 30' in length and weigh 11,000-15,000 lbs. while females can reach up to 25' in length and weigh 8,000 - 10,000 lbs.

How long do they live?

Females can live well into their 80s and males into their 50s. The average approximate lifespan for a female is 55 and 30 for a male. Why the big difference? We don't really know, but it is typical for mammal females to live longer than males.

Why are they called J, K and L pods?

In the late 60s and early 70s, a number of whales were captured for marine parks. In response to protests about these captures, population studies were conducted on the whales in the Pacific Northwest beginning in 1971. The studies began with the whales in the Northern Resident Community; consequently, those pod labels begin with A. When the studies extended south in 1974, into what is now known as the Salish Sea, the pods here were labeled J, K and L.

What about communication?

Each pod has its own dialect, or set of calls, used for communication. These calls are passed down from generation to generation so the calls that J, K and L were using hundreds of years ago may be very similar to the calls they use today. J, K and L pods also share many of their pod calls and, therefore, can easily communicate with each other.

Do they have a social structure?

As a matrilineal society, the family lines are traced through the females. Male offspring stay with their mothers their entire life. When females begin to have offspring, they branch off and start their own lines but will continue to travel closely with their mothers and the rest of their families. It's suggested that the matriarch, or oldest female, may be the one who leads the group.

Do we know who the fathers are?

It was believed for many years that the whales only bred pod to pod and not within their pod. This has been proven incorrect. Biopsy testing on some of the whales has shown the whales also breed within their pod but not within their direct matriline.

Why are they called "killer whales"?

Old Spanish whalers originally called them "whale killers" because groups of these animals were often seen preying on the larger baleen whales, hunting in packs like wolves. Eventually their name got switched to "killer whale" and that remains their common name today. Some people prefer to call them "orca" which is part of their scientific name, *Orcinus orca*.

What can still be learned about the orcas?

We actually know very little about the details of orca life, including their mating behavior, how they communicate, or what these whales do during the winter months when they're in the Pacific Ocean. Only 5% of their time is spent at the surface of the water - what is happening the other 95% of the time is mainly speculation on our part.

What are the current threats to the marine mammals in this area?

**Pollution of the Marine Environment.* Toxic substances accumulate in higher concentrations as they move up the food chain. Orcas, being the top predator in the ocean, presently have the distinction of being the most polluted marine mammals in the oceans today.

**Decline in salmon food resources.* Salmon runs are declining for a variety of reasons including:

- Streamside logging
- Irrigation for agriculture
- Production of salmon by hatcheries may actually be damaging salmon runs by competing for resources, diluting gene pools, and carrying diseases
- Faulty fish ladders in hydroelectric dams
- Loss of eelgrass by wetlands development
- Overfishing worldwide

**The possible negative effects of all the commercial and private boating in the area,* including harassment, noise pollution and exhaust/oil pollution.

In spring 2002, the Canadian Committee on the Status of Endangered Wildlife listed the Southern Resident Community as "**endangered**". This is because the population is small and had not exhibited sustained growth over the last 25 years. In May 2001, an Endangered Species petition was submitted to the U.S. National Marine Fisheries Services (NMFS) to get the Southern Resident Community listed in the United States. In the summer of 2002, NMFS listed them as **depleted** under the Marine Mammal Protection Act. In early 2005, NMFS proposed a threatened designation. In November, 2005, NMFS listed the Southern Resident Community as **endangered** under the Endangered Species Act. In May 2011, Federal Regulations were completed.